

AUDIO

FAQ

Q My CD-ripping program lets me select a bit rate. What does this mean, and what should I select?

A Computers create WMA, MP3 and other compressed audio files by analysing the original music track and discarding information that the average listener is unlikely to miss. Different formats use different methods to calculate which information to retain, and some are better than others.

The bit rate of a music file refers to how much information it contains for every second of music playback. Files with higher bit rates sound better, but they take up more disk space. If you have plenty of storage on your computer or MP3 player, go for a bit rate of 192 kilobits per second (Kbit/s) or higher for MP3s, and at least 160Kbit/s for WMA.

If space is more of an issue, stick to 128Kbit/s WMA files, but make sure your MP3 player can play them.

Simon Handby

Printers and audio expert

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SLIM DEVICES Squeezebox 3

★★★★★

£230 inc VAT

We reviewed Slim Devices' Squeezebox 2 in our round-up of wireless media players (*Labs, Shopper*, December 2005). It had a great display, but its shiny plastic case didn't look particularly good. This new version looks terrific, with a brushed aluminium front panel below the bright luminescent display.

We tested the wireless Squeezebox, but if you prefer to use an Ethernet cable you can buy a wired-only version for £180. The wireless model connects to 802.11g networks and, unlike many media players, supports both WEP and WPA wireless security.

In order to play your music collection, you need to run the server software on your PC. Most network music players support the standard uPNP AV server protocol, which means you can install one server and use several different types of player. Sadly, the Squeezebox requires its own SlimServer software, which you have to download.

We've had difficulty installing SlimServer in the past, but the latest version presented no problems. Once it's installed, you can browse your music by artist or album, search through your library or play a random selection of music. Playback is controlled through the player's infrared remote or using the server's neat web interface on your computer.

One advantage of the SlimServer software is that you can extend its capabilities with plug-ins. We found a brilliant third-party tool that enables the Squeezebox to play custom radio broadcasts from www.last.fm. There's no need to run your computer at all when listening to



other internet radio stations. Live365, Shoutcast and Radioio stations are available, plus stranger options such as a selection of 'nature sounds'. Whatever you listen to, the sound quality is excellent through both the stereo phono and digital S/PDIF outputs.

The Squeezebox also scores over other wireless media players with its ability to play several lossless audio formats, including FLAC, Apple Lossless and WMA Lossless files. You'll need a large hard disk to compile a library of lossless music, though, as FLAC files typically require 10 times the storage space of an MP3. People who buy music online will be disappointed to find that the Squeezebox can't play protected WMA files.

The Squeezebox 3 is the easiest wireless music player to use that we've seen, and its clever extra features, such as the ability to display RSS news headlines, are certainly impressive. It's incredibly expensive, though, and would be much easier to recommend if it could share a uPNP server with other players. If you want only one music player and you're prepared to pay over the odds for style, buy this. Otherwise, we recommend Roku's cheaper and more compatible SoundBridge.

Tom Royal

SUMMARY

- ✓ Great sound
- ✓ Extensive file support
- ✗ Very expensive
- ✗ A few minor omissions

WIRELESS NETWORK MUSIC PLAYER Supports MP3, WMA, OGG, AAC, Apple Lossless, WAV, AIFF and FLAC; Ethernet and 802.11G interfaces; WEP and WPA encryption; stereo phono and S/PDIF (coaxial and optical) outputs. Server available for Windows NT/2000/XP, Mac OS X and Linux (RPM or Perl source)
SUPPLIER www.amp3.co.uk
DETAILS www.slimdevices.com

Also consider...

CREATIVE Sound Blaster X-Fi XtremeMusic

★★★★★

£90 inc VAT

Creative's new sound card offers high-quality 24-bit, 96KHz sound recording and playback. The X-Fi is good for recording music, and has EAX Advanced HD 5.0 sound processing, which makes games that support it more atmospheric.

If you want the best sound on your PC, the X-Fi is better than any onboard sound chip.

SOUND CARD Line, mic and optical S/PDIF inputs, four line (7.1) outputs, midi port, PCI interface. PART CODE 70S8046002010
SUPPLIER www.microdirect.co.uk
DETAILS <http://uk.europe.creative.com>

- ✓ Great sound
- ✗ No RCA outputs

FULL REVIEW Dec 2005



LOGITECH X-230

★★★★★

£29 inc VAT

Logitech's X-230 were the most affordable 2.1 channel speakers in our recent Labs test, but they sounded better than much more expensive competitors. Each satellite's drivers are visible through a cloth net covering, while the compact subwoofer is protected by a sturdy metal grille.

These speakers could do with a second audio input, longer cables and an easy to reach bass level control, but they're outstanding for this price. Though not amazingly loud, they look superb and produce detailed and balanced sound.

2.1 SPEAKERS line input, 32W RMS power
PART CODE 970123-0120

- SUPPLIER www.amazon.co.uk DETAILS www.logitech.co.uk
- ✓ Excellent sound
- ✗ Only one input

FULL REVIEW Apr 2006

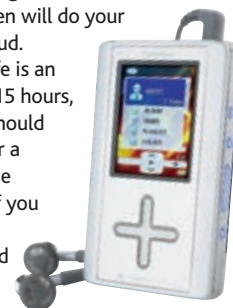


TOSHIBA Gigabeat F20

★★★★★

£175 inc VAT

If you can't leave the house without your music and photo collections, Toshiba's smart Gigabeat might be just what you need. Though small, its 320x240-pixel screen will do your snaps proud. Battery life is an excellent 15 hours, but you should budget for a headphone upgrade if you want the best sound quality.



MP3 PLAYER 20GB capacity, USB Hi-Speed interface, MP3, WMA and WAV playback, JPEG display. PART CODE MEG-F20
SUPPLIER www.dabs.com DETAILS www.gigabeat.toshiba.co.uk

- ✓ Great screen and sound
- ✗ Poor headphones

FULL REVIEW Sep 2005

ACOUSTIC ENERGY Internet Radio

★★★★

£180 inc VAT

The next time you're tempted to chuckle when your elders and betters refer to their radio as 'the wireless', check first that they haven't treated themselves to Acoustic Energy's Internet Radio. The small black and silver box may not look cutting edge, but it connects to your home wireless network and can play streamed radio stations from across the globe.

The Internet Radio supports the 802.11b/g wireless standards and can connect to networks protected by WEP and WPA encryption. Its controls aren't particularly intuitive, but most functions are available with just the jog wheel and a couple of buttons. We found it easy to set up once we'd grasped how to navigate through the menus.

Once on the internet, the radio connects to a gateway service run by Cambridge-based Reciva to download station information. From the Stations menu you can browse stations by content (such as talk or dance) or location. Finding a station you like is quick and easy if you're choosing from the four Algerian listings, for example, but scrolling through all 728 American stations takes some time.

Eight preset buttons let you store and recall favourites quickly, but there's plenty of fun to be had simply by browsing for the most obscure-sounding stations. We were intrigued by Japan's Elvismen Radio Merengue, but sadly this was the only station we found that wouldn't stream.

The Internet Radio requires nothing more than a wireless broadband router



to work, but it can access music in shared folders on any networked PC. It supports a wide range of audio formats and works without the need for server software. One superb feature is its ability to tune into on-demand streams such as those from the BBC's Listen Again service, which makes radio programmes available for a week after broadcast. After thorough testing, we now consider ourselves experts on the recent goings on in Ambridge.

Although it's light enough to carry around the house or garden, the Internet Radio can't work from battery power. Those with a wired network will also be frustrated by its lack of an Ethernet port. Sound quality is fine through the headphone socket, but there are no tone controls and the built-in speaker could benefit from more treble.

Acoustic Energy has used modern technology to create a product with cross-generational appeal. It implements internet radio better than anything we've seen, making it ideal for expats who long for a fellow countryman's voice. While it's a good product, though, it could be better and cheaper.

Simon Handby

SUMMARY

- ☒ Easy to set up
- ☒ Supports wide range of streamed media
- ☒ Expensive

WIRELESS INTERNET RADIO Supports Real Audio, MP3 and Windows Media streams, local MP3, WMA, OGG, Real Audio and WAV files, 802.11g interface, WEP and WPA encryption, stereo headphone output
SUPPLIER www.lowestonweb.com
DETAILS www.acoustic-energy.co.uk

CHOOSING A... Speaker System

Follow the steps to find your ideal specs

SURROUND FORMAT: Stereo

RMS POWER: 5W

INPUTS: 1x analogue

BUILT-IN DECODING: None

Recommended minimum in grey

1 PC speaker systems, which consist of speakers and an amplifier to power them, can cost anything from £5 to £300. The cheapest sets, with the specifications shown in grey above, will be fine for those who simply want to play Windows alert noises on a PC they use solely for work.

2 Those who use their PC for any kind of entertainment should go for a better system. The first thing to look for is a subwoofer, which handles bass frequencies, while the satellites output mid- and high-frequency sounds.

Other than this, the best way to establish the quality of a system is to consult our reviews. Specifications don't tell you much and the price of a system often bears little relation to its actual performance.

3 Games and DVDs will benefit greatly from a surround-sound system. The standard surround configuration is 5.1, which consists of five satellite speakers and one subwoofer, but those who must have the latest technologies should consider 6.1 or 7.1 speakers, plus a compatible sound card that is capable of supporting the extended Dolby Digital EX format.

4 The power rating can give you a rough idea of how loud the speakers will go. Ignore PMPO or Peak Power ratings, which can be as much as 40 times the RMS figure.

A 50W RMS system should provide ample volume for a desktop PC, but for a home cinema look for 100W RMS or more.

5 Stereo speakers just need a single analogue stereo input, while a 5.1 system needs three. Surround-sound systems incorporating Dolby Digital decoders must be fed through an S/PDIF digital input, which comes in (non-compatible) coaxial and optical versions. However, as Dolby Digital decoding can be handled in software, surround speakers with analogue inputs are far more cost-effective.

IRIVER U10 1GB

★★★★

£155 inc VAT

This is the first MP3 player we've seen with a control system to rival that of the iPod. Most functions are controlled by rocking the screen in the direction of an icon. The U10 looks and sounds gorgeous. It's better than an iPod Nano, but provides less storage.



MP3 PLAYER Flash-based MP3 player, 1GB capacity, supports MP3, WMA and protected WMA, WAV and OGG audio files, JPEG image files and AVI movies, USB Hi-Speed interface. **PART CODE** 3U104X
SUPPLIER www.dabs.com **DETAILS** www.iriver.eu.com ☒ Great design ☒ Expensive **FULL REVIEW** Mar 2006

CREATIVE Gigaworks G500

★★★★★

£163 inc VAT

This high-end set of 5.1 speakers give prominence to bass and treble frequencies that make for heart-pounding action in games. Each satellite speaker is rated at 36W, with the dual-ported subwoofer able to deliver 130W of crisp bass.

They produce wonderfully balanced and detailed music, and are worth the high price.

5.1 SPEAKERS Three line inputs plus aux input, 310W RMS power. **PART CODE** 51MF4040AA001
SUPPLIER www.savastore.com
DETAILS <http://uk.europe.creative.com> ☒ Produce clearly defined sound ☒ Auxiliary input is on the sub **FULL REVIEW** Apr 2006

SENNHEISER PXC 250

★★★★★

£70 inc VAT

These headphones use active electronics to cancel out environmental sounds. They don't do much to reduce unwelcome speech or music, but they are astonishingly effective on a plane or train. They sound great, with plenty of bass, and are comfortable to wear. Aside from their bulky battery case, these headphones are ideal for travel.

HEADPHONES Stereo-active noise-cancelling headphones, frequency response 10-21,000Hz, sensitivity 106dB. **PART CODE** PXC 250
SUPPLIER www.dolphinmusic.co.uk **DETAILS** www.sennheiser.co.uk ☒ Reduce background noise ☒ Bulky battery case **FULL REVIEW** Dec 2005

